

## Estrogen Toxicity: What it is, Where it comes from and How to test for it Part 1

By David Zeiger, D.O.

Estrogen metabolism, in women and in some men, plays a key role in the regulation of health and disease. Research over the past 5 years has found that the way estrogen is metabolized, broken down in the liver and either recycled or eliminated through the small intestine, will trigger chemical events in cells that have a marked disease potential. We see this in such health problems as endometriosis, obesity, PMS, infertility, osteoporosis as well as cancer of the breast, uterus etc.

Estrogen, progesterone, testosterone, DHEA and cortisone are 'cousins' of one another beginning with Cholesterol the 'grandmother' of all steroid hormones. The proper balance of these hormones is very important to maintaining ones health and hopefully preventing disease. Let's look at some interesting facts today.

- 80% of women complain of PMS
- 20-50% of women have Fibroids
- 80-90% of women experience Perimenopausal symptoms
- Premenopausal Breast Cancer has increased by 30% in the last 30 years
- 90% of women have Menopausal symptoms
- Osteoporosis effects more than 45% of women over age 50
- Hysterectomy and Breast surgery are the most common surgeries done in most hospitals
- Heart Disease and Breast Cancer is increasing in U.S. women



### Women's Health In 2002

These statistics do not hold for most of the women in other countries, due to lifestyle and dietary factors. This simple fact alone negates that there is not a pure genetic predisposition to these diseases as one has been led to believe. In contemporary medical dogma when 50% or more of a given population has a disorder and conventional medical science does not have a readily specific answer for it is "unofficially" considered "with in the norm".

Today's patients are increasingly more self-educated about their health and are not satisfied with accepting a "normative" explanation for any malady that affects their health and happiness. Nor should they!

Within the past decade more research has been directed at understanding and measuring the minuscule levels of these hormones – chemicals in our bodies that communicate important pieces of information between the cells of the various organs in our body. These chemical messengers tell our body how to respond to stress, how to heal after trauma or infection, control our cravings for carbohydrate, regulate our body fat, even alert us to potential problems that could threaten our health like cancer.

### Measuring for Hormones

Physicians have relied on the results of blood testing for everything from bacterial infections to infertility. The inherent limitations of these tests are well known, yet often not addressed. In the case of hormone analysis there are a number of important factors that make serum (blood) testing poorly representative of the actual amount of 'tissue levels' of hormone affecting adipose (fat) cell, breast, uterus, skin, brain etc.

A blood test of serum hormones mostly measures the amount of wrapped up or medically speaking 'bound' hormone (sex hormone binding globulin-SHBG). This is not representative of the true amount of free or 'unbound' hormone available to tissues. Serum testing therefore has some inherent limitations in providing clinically useful information.

Salivary measurement of steroid hormones provides the following advantages. It measures the 'free'

unbound active hormone, there is no SHBG found in saliva, salivary levels of hormones correlate well with unbound serum hormone levels, collection is easier and in the case of either a menstruating or menopausal woman a more accurate representation of the individual's actual levels of estrogen and progesterone can be evaluated prior to hormone replacement therapy if so is required.

### Sources of Estrogen

If our current measurements of estrogen levels are suspect then are women in menopause for example deficient in estrogen as previously thought? The answer would surprise you – No! In most situations current clinical research for the past decade has documented that majority of women especially in the United States are in relative predominance of estrogen to progesterone levels in their bodies. This is due in part to a physiological lack of progesterone production, the presence of xenoestrogens (chemicals, a majority of which come from plastic waste, that compete with and mimic your own estrogen) and estrogen augmentation. The key sources of such added estrogen is the effect of stress which increases estrogen production through elevated cortisol levels from the adrenal gland, the over use of birth control pills and finally the **presence of low dose estrogen (as well as testosterone, DHEA, even progesterone) is found 'hidden' in about 80% of the over-the-counter cosmetics; ie: facial creams, lipstick, toners, foundation, etc!**

Biologically there are three principle Estrogens: Estriol – highest amount in pregnancy Estrone, made in fat tissue and Estradiol – made by the ovary. The function of Estrogen:

- Growth of endometrial tissue
- Growth of follicle into egg
- Growth of breast tissue
- Support vaginal tissue
- Develop sex characteristics
- Stores fat
- Will decrease metabolism by interfering with thyroid metabolism

Progesterone is made by the ovary after ovulation as well as to some extent by the adrenal gland. Progesterone functions as:

- Promotes gestation
- Natural diuretic
- Uses fat for energy
- Natural antidepressant
- Restores sex drive
- Promotes cell differentiation
- Decreases estrogen induced overgrowth of cells; ie: potential cancer cells

### Symptoms of Excess Estrogen

- Breast tenderness
- Depression, fatigue, poor concentration
- Endometriosis
- Fibrocystic Breast
- PMS
- Fibroids
- Water retention and bloating
- Fat gain around hips and thighs
- Breast and Uterine Cancer

*Note: the above comes directly off the Premarin™ package insert.*

What does Progesterone excess cause? The same symptoms as Estrogen Excess!

Provera™ is a progestin, not biologically nor chemically the same as progesterone. It was created back in the 1950s to decrease the cancer promoting effect of estrogens. However, among it's major long-term effects are the following: Promotes endometrial shedding/bleeding, no positive effects on gestation and is a teratogenic – causes birth defects, **Creates Progesterone Deficiency**, increases sodium and

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water retention, depression, weight gain, hair loss and breast tenderness.

By addressing proper hormonal balance between estrogen and progesterone, one will be able to contribute significantly at decreasing the chances of having PMS, fibrocystic breast disease, osteoporosis, infertility, and even breast and uterine cancer.

### Hormone Balance – The Next Step

Getting a baseline measurement of your hormone levels prior to beginning management of any problem that could be hormonally related is a good starting point. Ask your health practitioner about salivary hormone testing. One of the most reliable salivary testing laboratories is Diagnos-Techs,™ Inc. www.diagnostechs.com.

Even if your cosmetics state they are free of any animal products and are all natural etc check with a physician who does salivary hormone testing to make sure you are not inadvertently dosing yourself unnecessarily with hormones.

### Nutritional Basics

Diets high in cruciferous vegetables like broccoli contain indole-3-carbinol. This naturally occurring substance has been found to favor estrogen breakdown into non carcinogenic forms and improve on the proper elimination of excess amounts of estrogen. Lignans found in flax seed as well as soy isoflavones will also help to regulate and normalize hormone production and detoxification.

Chasteberry, an herb, will help to normalize progesterone levels in the presence of estrogen dominance. FemCare Balance™, by Orthomolecular contains a high potency standardized extract of chasteberry along with licorice root and peony. Salivary hormone testing has confirmed this adaptogenic (balancing) effect on progesterone levels.

In the next article I will discuss the issues of acquired obesity, osteoporosis, heart disease and cancer. I will also present possible therapeutic

options available through a thorough integrative medical approach to improve your chances of avoiding as well as treating these diseases.

To life and good health,

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